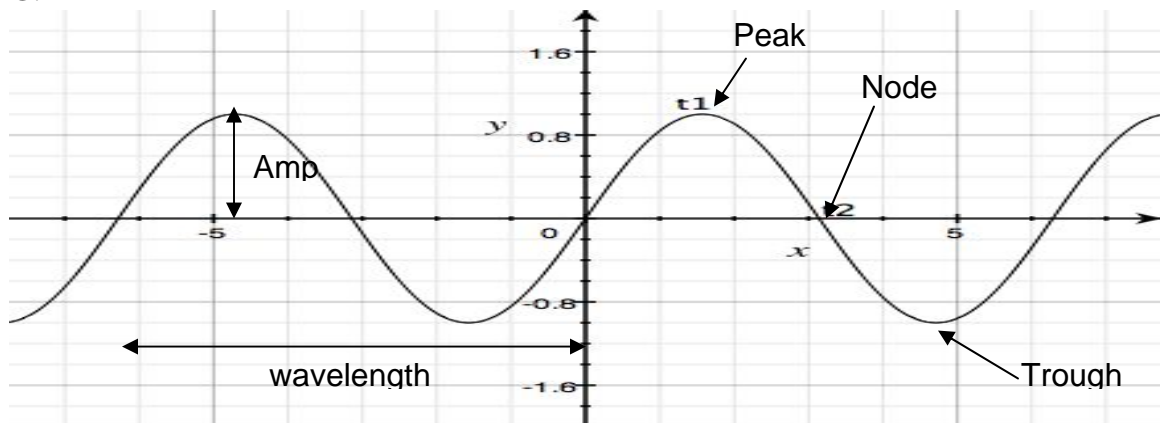


**3<sup>rd</sup> Term Review Answer**  
**Principles of Physics – Mr. Rita**

**Match the answer to the number of the question on your review sheet. Use the results to solve the puzzle.**

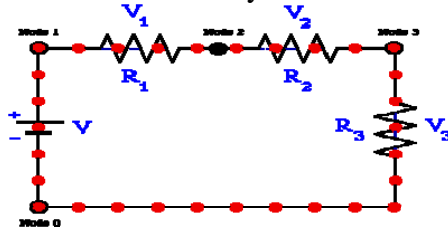
- A. Voltage = Current x Resistance ( $V = I R$ )
- B. The resonance frequency of the bridge matched the natural frequency of the wind. These two waves combined and made the amplitude grow so great that the bridge began to wave, thus destroying the bridge.
- C. A prism breaks down the white light from the sun, into ROYGBIV.
- D. It is the distance from the center line to the peak of the wave.
- E. Speed = frequency x wavelength ( $v = F\lambda$ ) & Speed = distance / time ( $S = d/t$ )
- F. It is the number of times something occurs, like cycles per second.
- G.



- H. Move your hand left to right. The parts of the rope move perpendicular
- I. Sounds are the result of longitudinal waves or compression waves. Light is sent by several planes of transverse waves.
- J. There are only 35 more days of class left!
- K. An emergency siren, a train whistle, engine sounds, as they pass the observer.
- L. Power = Current x Voltage ( $P = I \times V$ )
- M. White light is the combination of all colors.

N. Move your hand toward you and away from you. The spring parts move parallel to motion

O. Series circuit – current may only move in one path. In parallel, there are many paths the current can take. A series circuit may look like this:



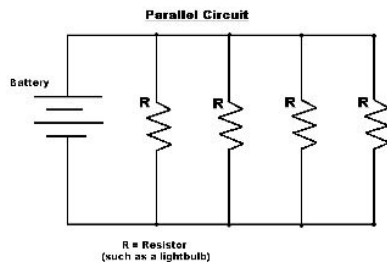
P. All the colors but blue.

Q. The filament. It acts as a resistor, producing heat and light.

R. Direct Current (DC) is from batteries, Alternating Current (AC) is used in most buildings

S. Longitudinal is a compression wave, Transverse is like a sine wave.

T. In a parallel circuit, current can move in many paths. If one bulb or resistor goes out, the circuit still operates. In a series circuit the current has one path and if one bulb or resistor goes out, the whole circuit shuts down. A parallel circuit may look like this:



U. Yellow and Red

V. The current (I) is the same throughout the series circuit. (*Think, there's an I in series*)

W. The voltage (V) is the same everywhere in the parallel circuit.

X. The block one plane of a light wave. They may be used to block UV light.

Y. 110 to 120 Volts

Z. Sound travels faster through metal than air and liquid.